

DOCKET NO: 264737US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
ANDREAS WOELFERT, ET AL. : EXAMINER: CHO, J. Y.
SERIAL NO: 10/523,919 :
FILED: FEBRUARY 7, 2005 : GROUP ART UNIT: 1621
FOR: MODERATE-PRESSURE GAS :
PHASE PHOSGENATION

REPLY BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

The following Reply Brief is in reply to the Examiner's answer dated September 22, 2008 (Answer).

The statement of the grounds of the rejection (Answer at 2-4) is identical to the statement in the Office Action dated November 27, 2007, which has already been responded to in the Appeal Brief. The following is in reply to the "Response to Argument" (Answer at 4).

In response to Applicants' argument that the present claims are drawn to a gas phase reaction, while Ohlinger et al's process is carried out in the liquid phase, the Examiner finds that "the claims still read on a process in which liquid reactants can convert to the gaseous phase as the reaction progresses. Additionally, the claims do not require all the reactants to be in the gas phase, only the diamine. Thus, it is the position of the Examiner that it is prima facie obvious to perform the reaction in the gas phase, as well as in the liquid phase, particularly since the prior art also teaches that the reaction can be carried out in either the

gas phase or the liquid phase, depending on the nature of the amine (column 1, lines 13-14)”
(Answer at 4).

In reply, Applicants define in the specification at page 4, lines 28-32 that the term “‘reaction in the gas’ phase means that the feed streams react with one another in the gaseous state.” In accordance with well-known patent principles, an applicant is entitled to be his own lexicographer. See, e.g., *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ 2d 1429, 1432 (Fed. Cir. 1998). Thus, the claims **do** require that **all** the reactants be in the gas phase when reacting. Moreover, Applicants have already explained in the Appeal Brief the context in which Ohlinger et al’s disclosure --that the reaction is carried out either in the gas phase or in the liquid phase depending on the nature of the amines-- would be understood. As Applicants pointed out therein, no prior art has been cited in which **aromatic** diisocyanates had been successfully prepared by reacting phosgene with a corresponding **aromatic** diamine in the gas phase.

The Examiner finds that Claim 2 “appears to require the temperature of the diamine to be such that the diamine would be in the form of a liquid, since the temperature of the reaction is below the boiling point of the diamine. This does not appear to be commensurate with the limitations of base Claim 1, in which the diamine would be in the form of a gas”
(Answer at 4).

In reply, Claim 2 refers to the temperature “in the reaction zone.” The reaction zone will include not only the diamine but other reactants, and other components such as an inert medium (which is not required in Claim 2 but is not excluded.) Thus, the partial pressure of the diamine in the reaction zone is less than 100% of the actual pressure. The situation can be analogized to the presence of moisture (water vapor) in air. Even below the boiling point of water (100°C), gaseous water can exist in the air up to a requisite partial pressure. Thus, there is no inconsistency with Claim 1.

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Reply Brief

For the above reasons, it is respectfully requested that the rejection be REVERSED.

Respectfully submitted,

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